

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

I. CLAIM STATUS AND AMENDMENTS

Claims 44-55, 58, 59, 61, 63-65, 68 and 69 were pending when last examined. Claims 44-54 are withdrawn as non-elected subject matter.

Claims 55, 63-65 and 69 are currently amended and claim 61 is canceled. Support for the amendments can be found in the specification and original claims as filed. Amended claims 55, 63-65 and 69 more clearly define the intended subject matter and correct matters of form. No new matter has been added.

II. CLAIM REJECTIONS - 35 USC §112, SECOND PARAGRAPH

At page 3, item 5, the Office Action rejects claims 55, 58-59, 61, 63-65, and 68-69 under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants respectfully traverse the rejection. Amended claim 55 addresses each of the issues noted in the Office Action.

Amended claim 55 features "an amino acid sequence conferring resistance against geminiviruses."

Amended claim 55 also features "continuous homology between the mutated C1/AL1/AC1 polynucleotide sequence and the selected C1/AL1/AC1 polynucleotide sequence is less than or equal

to 8 nucleotides" (emphasis added). The selected C1/AL1/AC1 sequence is defined in step a), and corresponds to the original, non-mutated, sequence. The mutated C1/AL1/AC1 sequence results from mutagenesis in step b). Thus, claim 55 clearly defines the feature of continuous homology between the mutated sequence and the original selected sequence.

Amended claim 55 and the other amended claims no longer recite a "geminivirus-derived" sequence.

Each of claims 55, 58-59, 63-65, and 68-69 (claim 61 was cancelled) satisfies the requirements of 35 U.S.C. § 112, second paragraph.

III. CLAIM REJECTIONS - 35 USC §112, FIRST PARAGRAPH

At page 4, item 6, the Office Action rejects claims 55, 58-59, 61, 63-65, and 68-69 under 35 U.S.C. § 112, first paragraph, as not enabled. Applicants respectfully traverse the rejection.

Amended claim 55 addresses the issues noted in the Office Action. First, amended claim 55 clarifies the specific types of mutations featured in the claimed method. As recited in claim 55, "the mutations consist of silent point mutations distributed along the geminivirus C1/AL1/AC1 polynucleotide sequence." Because they are "silent" point mutations, the mutations in the C1/AL1/AC1 polynucleotide sequence do not change the encoded amino acid sequence. Amended claim 55 clarifies that

mutations occur in the nucleic acid, but they are silent mutations and do not alter the corresponding amino acid sequence. Amended claim 55 also recites that "the mutated C1/AL1/AC1 polynucleotide sequence is an ineffective target of the geminivirus induced post-transcriptional transgene silencing."

Next, the Office Action acknowledges that the specification enables methods for preparing a transgenic plant having long lasting resistance against geminiviruses by making silent mutations in the C1/AL1/AC1 gene (see, page 5 of the Office Action). Amended claim 55 specifies the selection of geminivirus C1/AL1/AC1 polynucleotide sequence encoding an amino acid sequence conferring resistance against geminiviruses. Furthermore, claim 55 features that the resistance can be overcome over time by geminivirus induced post-transcriptional transgene silencing, and therefore, the method utilizes a silent mutated C1/AL1/AC1 polynucleotide sequence as the ineffective target of the geminivirus induced post-transcriptional transgene silencing.

For all of these reasons, the specification fully enables a method for the preparation of transgenic plants, plant tissue or cells thereof having long lasting resistance against geminiviruses, as featured in claims 55, 58, 59, 63-65, and 68-69 (claim 61 is cancelled). Each of these claims satisfies the requirements of 35 U.S.C. § 112, first paragraph. Accordingly,

Applicants request reconsideration and withdrawal of the rejection.

III. CONCLUSION

Having addressed all the outstanding issues, the amendment is believed to be fully responsive. In view of the above, it is respectfully submitted that the application is in condition for allowance and notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

/H. James Voeller/
H. James Voeller, Reg. No. 48,015
209 Madison Street, Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

HJV/fb